though it had been on the tip of his tongue to say, "How stupid," or "Not me, climbing hurts my legs," when the plane failed. When some signal is desperately needed by both parties and both parties know it, even a poor signal and a discriminatory one may command recognition, in default of any other. Once the contingency is upon them, their interests, which originally diverged in the play of threats and deterrents substantially coincide in the desperate need for a focus of agreement.

Two years ago the Manchester Guardian suggested that the Western powers consider declaring unilaterally that, in the event of major atomic war, they would not use nuclear weapons against large cities unless the enemy did so first (1,2). It proposed making a distinction between the massive bombing of cities and the more restricted use of atomic weapons on a battlefield or on strictly military targets such as airfields. The notion was not that the Soviets would agree overtly or even bother to disagree but that, if war came, both we and they would be so eager to find some limits to the bombing of civilian cities that we both might possibly manage to observe limits—even quite crude limits or discriminatory ones-if there were a proposal in existence as a focus for agreement. Each might at least honor the proposal tentatively, to see whether the other would too; and the result might be a stable mutual acquiescence. This proposal illustrates negotiation with incomplete communication or, to put it differently, tacit negotiation with the help of a prior suggestion. A number of difficulties come to mind: What is a civilian city? What is a military target? What kinds of weapons are ruled out on the former? What margin for error is to be allowed? etc. Could the Western powers possibly find definitions and criteria acceptable enough to the Russians to permit such tacit agreement?

Our analysis of tacit bargaining contains two suggestions on this problem. One is to adopt criteria that are as qualitative and discrete as possible, avoiding reliance on matters of degree or judgment. The other is simply that unilateral suggestions, even if not tested for "acceptability" to the Russian in any sense analogous to explicit agreement, may serve the desperate purpose when there is no alternative but mutual destruction. In fact, the analogous feature of explicit negotiation suggests that negotiated agreement might be more quickly achieved if there were some prior suggestion around which mutual expectations could crystallize when quick agreement is required.

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Superordinate Goals in the Reduction of Intergroup Conflict

Muzafer Sherif

In the past, measures to combat the problems of intergroup conflicts, proposed by social scientists as well as by such people as administrators, policymakers, municipal officials, and educators, have included the following: introduction of legal sanctions; creation of opportunities for social and other contacts among members of conflicting groups; dissemination of correct information to break down false prejudices and unfavorable stereotypes; appeals to the moral ideals of fair play and brotherhood; and even the introduction of rigorous physical activity to produce catharsis by releasing pent-up frustrations and aggressive complexes in the unconscious. Other measures proposed include the encouragement of co-operative habits in one's own community, and bringing together in the cozy atmosphere of a meeting room the leaders of antagonistic groups.

Many of these measures may have some value in the reduction of intergroup conflicts, but, to date, very few generalizations have been established concerning the circumstances and kinds of intergroup conflict in which these measures are effective. Today measures are applied in a somewhat trial-and-error fashion. Finding measures that have wide validity in practice can come only through clarification of the nature of intergroup conflict and analysis of the factors conducive to harmony and conflict between groups under given conditions.

The task of defining and analyzing the nature of the problem was undertaken in a previous publication (Sherif & Sherif, 1953). One of our major statements was the effectiveness of superordinate goals for the reduction of intergroup conflict. "Superordinate goals" we defined as goals which are compelling and highly appealing to members of two or more groups in conflict but which cannot be attained by the resources and energies of the groups separately. In effect, they are goals attained only when groups pull together.

Intergroup Relations and the Behavior of Group Members

Not every friendly or unfriendly act toward another person is related to the group membership of the individuals involved. Accordingly, we must select those actions relevant to relations between groups.

Let us start by defining the main concepts involved. Obviously, we must begin with an adequate conception of the key term—"group." A group is a social unit (1) which consists of a number of individuals who, at a

given time, stand in more or less definite interdependent status and role relationships with one another and (2) which explicitly or implicitly possesses a set of values or norms regulating the behavior of individual members, at least in matters of consequence to the group. Thus, shared attitudes, sentiments, aspirations, and goals are related to and implicit in the common values or norms of the group.

The term "intergroup relations" refers to the relations between two or more groups and their respective members. In the present context we are interested in the acts that occur when individuals belonging to one group interact, collectively or individually, with members of another in terms of their group identification. The appropriate frame of reference for studying such behavior includes the functional relations between the groups. Intergroup situations are not voids. Though not independent of relationships within the groups in question, the characteristics of relations between groups cannot be deduced or extrapolated from the properties of in-group relations.

Prevalent modes of behavior within a group, in a way of co-operativeness and solidarity or competitiveness and rivalry among members, need not be typical of actions involving members of an out-group. At times. hostility toward out-groups may be proportional to the degree of solidarity with the group. In this connection, results presented by the British statistician L. F. Richardson are instructive. His analysis of the number of wars conducted by the major nations of the world from 1850 to 1941 reveals that Great Britain heads the list with twenty warsmore than the Japanese (nine wars), the Germans (eight wars), or the United States (seven wars). We think that this significantly larger number of wars engaged in by a leading European democracy has more to do with the intergroup relations involved in perpetuating a far-flung empire than with dominant practices at home or with personal frustrations of individual Britishers who participated in these wars.

In recent years relationships between groups have sometimes unusual degrees of frustration or extensive authoritarian treat-

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ment in their life-histories. There is good reason to believe that some people growing up in unfortunate life-circumstances may become more intense in their prejudices and hostilities. But at best these cases explain the intensity of behavior in a given dimension. In a conflict between two groups—a strike or a war-opinion within the groups is crystallized, slogans are formulated, and effective measures are organized by members recognized as the most responsible in their respective groups. The prejudice scale and the slogans are not usually imposed on the others by the deviate or neurotic members. Such individuals ordinarily exhibit their intense reactions within the reference scales of prejudice, hostility, or sacrifice established in their respective settings.

The behavior by members of any group toward another group is not primarily a problem of deviate behavior. If it were, intergroup behavior would not be the issue of vital consequence that it is today. The crux of the problem is the participation by group members in established practices and social-distance norms of their group and their response to new trends developing in relationships between their own group and other groups.

On the basis of his UNESCO studies in India, Gardner Murphy concludes that to be a good Hindu or a good Moslem implies belief in all the nasty qualities and practices attributed by one's own group—Hindu or Moslem—to the other. Good members remain deaf and dumb to favorable information concerning the adversary. Social contacts and avenues of communication serve, on the whole, as vehicles for further conflicts not merely for neurotic individuals but for the bulk of the membership.

In the process of interaction among members, an in-group is endowed with positive qualities which tend to be praiseworthy, self-justifying, and even self-glorifying. Individual members tend to develop these qualities through internalizing group norms and through example by high-status members, verbal dicta, and a set of correctives standardized to deal with cases of deviation. Hence, possession of these qualities, which reflect their particular brand of ethnocentrism, is not essentially a problem of devia-

tion or personal frustration. It is a question of participation in in-group values and trends by good members, who constitute the majority of membership as long as group solidarity and morale are maintained.

To out-groups and their respective members are attributed positive or negative qualities, depending on the nature of functional relations between the groups in question. The character of functional relations between groups may result from actual harmony and interdependence or from actual incompatibility between the aspirations and directions of the groups. A number of field studies and experiments indicate that, if the functional relations between groups are positive, favorable attitudes are formed toward the outgroup. If the function relations between groups are negative, they give rise to hostile attitudes and unfavorable stereotypes in relation to the out-group. Of course, in large group units the picture of the out-group and relations with it depend very heavily on communication, particularly from the mass media.

Examples of these processes are recurrent in studies of small groups. For example, when a gang "appropriates" certain blocks in a city, it is considered "indecent" and a violation of its "rights" for another group to carry on its feats in that area. Intrusion by another group is conducive to conflict, at times with grim consequences, as Thrasher showed over three decades ago.

When a workers' group declares a strike, existing group lines are drawn more sharply. Those who are not actually for the strike are regarded as against it. There is no creature more lowly than the man who works while the strike is on. The same type of behavior is found in management groups under similar circumstances.

In time, the adjectives attributed to outgroups take their places in the repertory of the group norms. The lasting, derogatory stereotypes attributed to groups low on the social-distance scale are particular cases of group norms pertaining to out-groups.

As studies by Borgardus show, the socialdistance scale of a group, once established, continues over generations, despite changes of constituent individuals, who can hardly be said to have prejudices because of the same severe personal frustrations or authoritarian treatment

Literature on the formation of prejudice by growing children shows that it is not even necessary for the individual to have actual unfavorable experiences with out-groups to form attitudes of prejudice toward them. In the very process of becoming an in-group member, the intergroup delineations and corresponding norms prevailing in the group are internalized by the individual.

## A Research Program

A program of research has been under way since 1948 to test experimentally some hypotheses derived from the literature of intergroup relations. The first large-scale intergroup experiment was carried out in 1949, the second in 1953, and the third in 1954. The conclusions reported here briefly are based on the 1949 and 1954 experiments and on a series of laboratory studies carred out as co-ordinate parts of the program.

The methodology, techniques, and criteria for subject selection in the experiments must be summarized here very briefly. The experiments were carried out in successive stages: (1) groups were formed experimentally; (2) tension and conflict were produced between these groups by introducing conditions conducive to competitive and reciprocally frustrated relations between them; and (3) the attempt was made toward reduction of the intergroup conflict. This stage of reducing tension through introduction of superordinate goals was attempted in the 1954 study on the basis of lessons learned in the two previous studies.

At every stage the subjects interacted in activities which appeared natural to them at a specially arranged camp site completely under our experimental control. They were not aware of the fact that their behavior was under observation. No observation or recording was made in the subjects' presence in a way likely to arouse the suspicion that they were being observed. There is empirical and experimental evidence contrary to the contention that individuals cease to be mindful when

they know they are being observed and that their words are being recorded.

In order to insure validity of conclusions, results obtained through observational methods were cross-checked with results obtained through sociometric technique, stereotype rating of in-groups and out-groups, and through data obtained by techniques adapted from the laboratory. Unfortunately, these procedures cannot be elaborated here. The conclusions summarized briefly are based on results cross-checked by two or more techniques.

The production of groups, the production of conflict between them, and the reduction of conflict in successive stages were brought about through the introduction of problem situations that were real and could not be ignored by individuals in the situation. Special "lecture methods" or "discussion methods" were not used. For example, the problem of getting a meal through their own initiative and planning was introduced when participating individuals were hungry.

Facing a problem situation which is immediate and compelling and which embodies a goal that cannot be ignored, group members do initiate discussion and do plan and carry through these plans until the objective is achieved. In this process the discussion becomes their discussion, the plan their plan, the action their action. In this process discussion, planning, and action have their place, and, when occasion arises, lecture or information has its place, too. The sequence of these related activities need not be the same in all cases.

The subjects were selected by rigorous criteria. They were healthy, normal boys around the age of eleven and twelve, socially well adjusted in school and neighborhood, and academically successful. They came from a homogeneous sociocultural background and from settled, well-adjusted families of middle or lower-middle class and Protestant affiliations. No subject came from a broken home. The mean I.Q. was above average. The subjects were not personally acquainted with one another prior to the experiment. Thus, explanation of results on the basis of background differences, social maladjustment, undue childhood frustrations. or

previous interpersonal relations was ruled out at the beginning by the criteria for selecting subjects.

The first stage of the experiments was designed to produce groups with distinct structure (organization) and a set of norms which could be confronted with intergroup problems. The method for producing groups from unacquainted individuals with similar background was to introduce problem situations in which the attainment of the goal depended on the co-ordinated activity of all individuals. After a series of such activities, definite group structures or organizations developed.

The results warrant the following conclusions for the stage of group formation: When individuals interact in a series of situations toward goals which appeal to all and which require that they co-ordinate their activities, group structures arise having hierarchical status arrangements and a set of norms regulating behavior in matters of consequence to the activities of the group.

Once we had groups that satisfied our definition of "group," relations between groups could be studied. Specified conditions conducive to friction or conflict between groups were introduced. This negative aspect was deliberately undertaken because the major problem in intergroup relations today is the reduction of existing intergroup frictions. (Increasingly, friendly relations between groups is not nearly so great an issue.) The factors conducive to intergroup conflict give us realistic leads for reducing conflict.

A series of situations was introduced in which one group could achieve its goal only at the expense of the other group—through a tournament of competitive events with desirable prizes for the winning group. The results of the stage of intergroup conflict supported our main hypotheses. During interaction between groups in experimentally introduced activities which were competitive and mutually frustrating, members of each group developed hostile attitudes and highly unfavorable stereotypes toward the other group and its members. In fact, attitudes of social distance between the groups became so definite that they wanted to have nothing further to do with each other. This we take as a case of experimentally produced "social distance"

in miniature. Conflict was manifested in derogatory name-calling and invectives, flareups of physical conflict, and raids on each other's cabins and territory. Over a period of time, negative stereotypes and unfavorable attitudes developed.

At the same time there was an increase in in-group solidarity and co-operativeness. This finding indicates that co-operation and democracy within groups do not necessarily lead to democracy and co-operation with outgroups, if the directions and interests of the groups are conflicting.

Increased solidarity forged in hostile encounters, in rallies from defeat, and in victories over the out-group is one instance of a more general finding: Intergroup relations, both conflicting and harmonious, affected the nature of relations within the groups involved. Altered relations between groups produced significant changes in the status arrangements within groups, in some instances resulting in shifts at the upper status levels or even a change in leadership. Always, consequential intergroup relations were reflected in new group values or norms which signified changes in practice, word, and deed within the group. Counterparts of this finding are not difficult to see in actual and consequential human relations. Probably many of our major preoccupations, anxieties, and activities in the past decade are incomprehensible without reference to the problems created by the prevailing "cold war" on an international scale.

> Reduction of Intergroup Friction

A number of the measures proposed today for reducing intergroup friction could have been tried in this third stage. A few will be mentioned here, with a brief explanation of why they were discarded or were included in our experimental design.

Disseminating favorable information in regard to the out-group was not included. Information that is not related to the goals currently in focus in the activities of groups is

relatively ineffective, as many studies on attitude change have shown.

- 2. In small groups it is possible to devise sufficiently attractive rewards to make individual achievement supreme. This may reduce tension between groups by splitting the membership on an "every-man-for-himself" basis. However, this measure has little relevance for actul intergroup tensions, which are in terms of group membership and group alignments.
- 3. The resolution of conflict through leaders alone was not utilized. Even when group leaders meet apart from their groups around a conference table, they cannot be considered independent of the dominant trends and prevailing attitudes of their membership. If a leader is too much out of step in his negotiations and agreements with out-groups, he will cease to be followed. It seemed more realisic, therefore, to study the influence of leadership within the framework of prevailing trends in the groups involved. Such results will give us leads concerning the conditions under which leadership can be effective in reducing intergroup tensions.
- 4. The "common-enemy" approach is effective in pulling two or more groups together against another group. This approach was utilized in the 1949 experiment as an expedient measure and yielded effective results. But bringing some groups together against others means larger and more devastating conflicts in the long run. For this reason, the measure was not used in the 1954 experiment.
- 5. Another measure, advanced both in theoretical and in practical work, centers around social contacts among members of antagonistic groups in activities which are pleasant in themselves. This measure was tried out in 1954 in the first phase of the integration stage.
- As the second phase of the integration stage, we introduced a series of superordinate goals which necessitated co-operative interaction between groups.

The social contact situations consisted of activities which were satisfying in themselves—eating together in the same dining room, watching a movie in the same hall, or engag-

ing in an entertainment in close physical proximity. These activities, which were satisfying to each group, but which did not involve a state of interdependence and co-operation for the attainment of goals, were not effective in reducing intergroup tension. On the contrary, such occasions of contact were utilized as opportunities to engage in name-calling and in abuse of each other to the point of physical manifestations of hostility.

The ineffective, even deleterious, results of intergroup contact without superordinate goals have implications for certain contemporary learning theories and for practice in intergroup relations. Contiguity in pleasant activities with members of an out-group does not necessarily lead to a pleasurable image of the out-group if relations between the groups are unfriendly. Intergroup contact without superordinate goals is not likely to produce lasting reduction of intergroup hostility. John Gunther, for instance, in his survey of contemporary Africa, concluded that, when the intergroup relationship is exploitation of one group by a "superior" group, intergroup contact inevitably breeds hostility and conflict.

## Introduction of Superordinate Goals

After establishing the ineffectiveness, even the harm, in intergroup contacts which did not involve superordinate goals, we introduced a series of superordinate goals. Since the characteristics of the problem situations used as superordinate goals are implicit in the two main hypotheses for this stage, we shall present these hypotheses:

- When groups in a state of conflict are brought into contact under conditions embodying superordinate goals, which are compelling but cannot be achieved by the efforts of one group alone, they will tend to co-operate toward the common goals.
- 2. Co-operation between groups, necessitated by a series of situations embodying superor-

dinate goals, will have a cumulative effect in the direction of reducing existing conflict between groups.

The problem situations were varied in nature, but all had an essential feature in common-they involved goals that could not be attained by the efforts and energies of one group alone and thus created a state of interdependence between groups: combating a water shortage that affected all and could not help being "compelling"; securing a much-desired film, which could not be obtained by either group alone but required putting their resources together; putting into working shape, when everyone was hungry and the food was some distance away, the only means of transportation available to carry food.

The introduction of a series of such superordinate goals was indeed effective in reducing intergroup conflict: (1) when the groups in a state of friction interacted in conditions involving superordinate goals, they did co-operate in activities leading toward the common goal and (2) a series of joint activities leading toward superordinate goals had the cumulative effect of reducing the prevailing friction between groups and unfavorable stereotypes toward the out-group.

These major conclusions were reached on the basis of observational data and were confirmed by sociometric choices and stereotype ratings administered first during intergroup conflict and again after the introduction of a series of superordinate goals. Comparison of the sociometric choices during intergroup conflict and following the series of superordinate goals shows clearly the changed attitudes toward members of the out-group. Friendship preferences shifted from almost exclusive preference for in-group members toward increased inclusion of members from the "antagonists." Since the groups were still intact following co-operative efforts to gain superordinate goals, friends were found largely within one's group. However, choices of out-group members grew, in one group, from practically none during intergroup conflict to 23 per cent. Using chi square, this difference is significant (P .05). In the other group, choices of the out-group increased to 36 per cent, and the difference is significant (P.001). The findings confirm observations that the series of superordinate goals produced increasingly friendly associations and attitudes pertaining to out-group members.

Observations made after several superordinate goals were introduced showed a sharp decrease in the name-calling and derogation of the out-group common during intergroup friction and in the contact situations without superordinate goals. At the same time the blatant glorification and bragging about the in-group, observed during the period of conflict, diminished. These observations were confirmed by comparison of ratings of stereotypes (adjectives) the subjects had actually used in referring to their own group and the out-group during conflict with ratings made after the series of superordinate goals. Ratings of the out-group changed significantly from largely unfavorable ratings to largely favorable ratings. The proportions of the most unfavorable ratings found appropriate for the out-group—that is, the categorical verdicts that "all of them are stinkers" or "... smart alecks" or "... sneaky"-fell, in one group, from 21 per cent at the end of the friction stage to 1.5 per cent after interaction oriented toward superordinate goals. The corresponding reduction in these highly unfavorable verdicts by the other group was from 36.5 to 6 per cent. The over-all differences between the frequencies of stereotype rating made in relation to the out-group during intergroup conflict and following the series of superordinate goals are significant for both groups at the .001 level (using chisquare test).

Ratings of the in-group were not so exclusively favorable, in line with observed decreases in self-glorification. But the differences in ratings of the in-group were not statistically significant, as were the differences in rating of the out-group.

Our findings demonstrate the effectiveness of a series of superordinate goals in the reduction of intergroup conflict, hostility, and their by-products. They also have implications for other measures proposed for reducing intergroup tensions.

It is true that lines of communication between groups must be opened before prevailing hostility can be reduced. But, if contact between hostile groups takes place without superordinate goals, the communication channels serve as media for further accusations and recriminations. When contact situations involve superordinate goals, communication is utilized in the direction of reducing conflict in order to attain the common goals.

Favorable information about a disliked out-group tends to be ignored, rejected, or reinterpreted to fit prevailing stereotypes. But, when groups are pulling together toward superordinate goals, true and even favorable information about the out-group is seen in a new light. The probability of information being effective in eliminating unfavorable/ stereotypes is enormously enhanced.

When groups co-operate in the attainment of superordinate goals, leaders are in a posi-

tion to take bolder steps toward bringing about understanding and harmonious relations. When groups are directed toward incompatible goals, genuine moves by a leader to reduce intergroup tension may be seen by the membership as out of step and ill advised. The leader may be subjected to severe criticism and even loss of faith and status in his own group. When compelling superordinate goals are introduced, the leader can make moves to further co-operative efforts, and his decisions receive support from other group members.

In short, various measures suggested for the reduction of intergroup conflict-disseminating information, increasing social contact, conferences of leaders—acquire new significance and effectiveness when they become part and parcel of interaction processes between groups oriented toward superordinate goals which have real and compelling value for all groups concerned.